

REMARKS

Applicant respectfully requests reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

No claims are being amended or canceled. New claims 15, 16, 17 and 18 are being added.

A detailed listing of all claims that are, or were, in the application, irrespective of whether the claim(s) remain under examination in the application, is presented, with an appropriate defined status identifier.

After amending the claims as set forth above, claims 1-18 are now pending in this application. Of these claims, claims 11 and 13 currently stand withdrawn.

Interview of July 14, 2005

Applicants greatly appreciate the Examiner's courtesy to hold a personal interview for the present application, which was held on July 14, 2005. Applicants believe that the Interview Summary accurately states the substance of the interview.

Claim Rejection Under 35 U.S.C. § 102

Claims 1-2, 4-10, 12, 14 have been rejected under 35 U.S.C. § 102(e) as being anticipated by Grau (US Patent No. 6,615,777). The rejection is respectfully traversed based on the presently pending claims.

In particular, independent claims 1, 12, and 14 recite the feature that the reduction mechanism (reducing means in claim 14) has "a reduction ratio set to be larger when the valve is under control of small operating angle than when the valve is under control of large operating angle." Grau plainly does not disclose this limitation, and Applicants respectfully request that the Examiner withdraw the anticipation rejection of the independent claims.

According to the Office Action, Grau discloses a variable-valve-actuation (VVA) apparatus for an internal combustion engine with a valve, comprising a control shaft arranged rotatable in accordance with operating conditions of the engine, an alteration mechanism

which changes at least an operation angle of the valve in accordance with rotation of the control shaft, and a drive mechanism which rotate the control shaft, the drive mechanism comprising an electric motor and a reduction mechanism.

The Office Action further asserts that Grau discloses that the feature of the “reduction mechanism having a reduction ratio set to be larger when the valve is under control of small operating angle than when the valve is under control of large operating angle (See Figure 1(1), (2), (5), (8)).”

However, Grau does not disclose that the reduction mechanism (reducing means in claim 14) “having a reduction ratio set to be larger when the valve is under control of small operation angle then when the valve is under control of large angle” as recited in present independent claims 1, 12, 14.

In particular, nothing in Grau expressly states that the asserted reduction mechanism operates to have a reduction ratio set to be larger when the valve is under control of small operation angle then when the valve is under control of large angle. Grau never states having such an operation. The figures of Grau do not help. They have no statements or express illustration to configure the asserted reduction mechanism to change the reduction ratio in the manner claimed.

Moreover, there is nothing inherent in Grau that leads to the noted feature of claims 1, 12, and 14. As stated by the Federal Circuit:

Under the doctrine of inherency, if an element is not expressly disclosed in a prior art reference, the reference will still be deemed to anticipate a subsequent claim if the missing element “is necessarily present in the thing described in the reference” *Continental Can Co. v. Monsanto Co.*, 948 F.2d 1264, 1268 (Fed. Cir. 1991). “Inherent anticipation requires that the missing descriptive material is ‘necessarily present,’ not merely probably or possibly present, in the prior art.” *Trintec Indus., Inc. v. Top-U.S.A. Corp.*, 295 F.3d 1292, 1295 (Fed. Cir. 2002) (quoting *In re Robertson*, 169 F.3d 743, 745, (Fed. Cir. 1999)).

Rosco, Inc. v. Mirror Lite Co., 304 F.3d 1373, 1380 (Fed. Cir. 2002) (emphasis added).

Using the standard from the Federal Circuit, it is quite clear that nothing in Grau necessarily requires that the asserted reduction mechanism have a configuration in which a reduction ratio set to be larger when the valve is under control of small operation angle then when the valve is under control of large angle. Yet further, Grau has no suggestion or teaching of the advantages and benefits associated with the present claimed feature. See, e.g., page 13 of the present specification.

In short, nothing in Grau either expressly or inherently meets the feature of present claims 1, 12, and 14 that reduction mechanism have a configuration in which a reduction ratio set to be larger when the valve is under control of small operation angle then when the valve is under control of large angle. For this reason, claims 1, 12, and 14 cannot be anticipated by Grau.

In addition, dependent claims 2 and 4-10 are patentable at least based on their dependency of claim 1, 12 and 14.

Further, withdrawn claim 11 should be rejoined based on its dependency from claim 1.

Finally, Applicants respectfully request that claim 13 should be rejoined and allowed because it contains the same allowable subject matter as claim 1.

New claims

Applicants have added new dependent claims 15, 16, 17 and 18. These new claims are fully supported original specification of the present application, including for example, Figures 1 and 6 and their associated description.

In addition to the allowability of claims 15-17 based on claim 2, the applied prior art does not disclose or suggest the structure of claim 15 (and claims 16 and 17 further depend from claim 15). Claim 15 recites that the output shaft and the motor are axially slidable

relative to one another. According to the Office Action, the threaded screw 9 in Grau is understood to be the output shaft. Grau states that the threaded screw 9 and an electromotor shaft 12 are made together in one piece, and teaches advantages of such a structure. Grau, column 3 lines 41-45. Thus, the threaded shaft 9 and the electromotor shaft 12 can not be axially slidable to one other, and Grau teaches against making these components axially slidable relative to one another. Claim 15 is patentable over Grau for this additional reason.

New independent claim 18 is also believed to patentably distinguish over Grau, due at least to the specific features concerning the controller recited in claim 18.

Conclusion

Applicant believes that the present application is now in condition for allowance.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date

July 28, 2005

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